

ABSTRACT

The present invention provides an apparatus for effectively heating a green tire by generating heat to a metal member embedded therein using electromagnetic induction, to complete a heating formation of a green tire in a sufficiently short time. Particularly, in the thick portion of the green tire which is hard to rise temperature, the efficiency of heat generation due to electromagnetic induction is increased by effectively concentrating high frequency magnetic field on the metal member embedded therein.

The apparatus for heating a green tire comprises a local heating coil for forming high frequency magnetic field along a portion of extending direction of a metal member, a high frequency power supply for supplying high frequency power to the local heating coil, and a moving means for moving the local heating coil relatively in the extending direction of the metal member.

Fig. 1	keeping process	forming process
	vulcanizing process	high frequency power supply
Fig. 2	forming process	keeping process
	vulcanizing process	
Fig. 3	vulcanizing process	
	keeping process	
	forming process	

transport a tire having completed the vulcanization to later process

transport a holding mechanism to a forming process

Fig. 4				
Fig. 5	N ₂ gas			
Fig. 6	high frequency power supply			
Fig. 7	Fig. 8(a)	Fig. 8(b)	Fig. 9(a)	Fig. 9(b)
Fig. 10(a)	Fig. 10(b)	high frequency power supply		
Fig. 11(a)	Fig. 11(b)	high frequency power supply		
Fig. 12(a)	Fig. 12(b)	high frequency power supply		
Fig. 13(a)				
Fig. 13(b)	driver voltage detector	inverter	rectifying circuit	
Fig. 14(a)	Fig. 14(b)	Fig. 15(a)	Fig. 15(b)	
Fig. 16(a)	Fig. 16(b)	Fig. 17(a)	Fig. 17(b)	
Fig. 18(a)	Fig. 18(b)	Fig. 19		
Fig. 20(a)	Fig. 20(b)	Fig. 20(c)	Fig. 20(d)	
Fig. 21	Fig. 22	Fig. 23	Fig. 24	Fig. 25
Fig. 26(a)	Fig. 26(b)	Fig. 26(c)	Fig. 26(d)	
Fig. 27	belt edge	tread center		
Fig. 28	coil side	tire side		